

REMARKS

Claims 1-2 and 4-12 are currently pending. Applicants thank the Examiner for the indication of allowability of claim 11. Claims 1 and 12 have been amended and introduce no new matter. Claim 13 has been added and introduces no new matter. Claims 1, 4, and 5 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,663,870 to Tsutsumi *et al.* (hereinafter “Tsutsumi”). Claims 1, 2, and 12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by German Letters of Disclosure No. 4028062 (hereinafter the “‘062 patent”). Claims 1, 6, 7, and 10 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,638,346 to Inami *et al.* (hereinafter “Inami”). Claims 7, 8, and 9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘062 patent in view of Inami. Applicants respectfully traverse the rejections.

The present invention relates to an alcohol sensor capable of detecting the concentration of alcohol in a gas. Importantly, the present invention improves upon the prior art by providing for a range of operating temperatures between room temperature and 60° Celsius. Furthermore, the present invention utilizes sensitive materials in the preparation of gas-sensitive layers, thereby creating an alcohol sensor that distinguishes between gases and eliminates the effects of temperature and moisture from the alcohol reading.

The Claims Are Novel

Applicants respectfully assert that claims 1, 4, and 5 are not anticipated by Tsutsumi. Tsutsumi fails to teach each and every limitation of claims 1, 4, and 5. As amended, claim 1 specifically provides for “at least one gate electrode located at a

distance from the source and drain areas such that a vacant space between the gate electrode on the one hand and the source and drain areas on the other hand is formed” as well as a “vacant space between the gas-sensitive layer on the one hand and the source and drain areas on the other hand.”

The vacant space between the gate electrode and the portion of the substrate containing the source and drain areas represents a limitation that is not taught by Tsutsumi (see, e.g., Figure 6), and as such, claim 1 as amended is not anticipated by this reference. Tsutsumi also fails to disclose or suggest a “vacant space between the gas-sensitive layer on the one hand and the source and drain areas on the other hand” into which test gas can stream in.

Because claims 4 and 5 depend from claim 1, they are similarly not anticipated by Tsutsumi.

Moreover, claims 1, 2, and 12 are not anticipated by the ‘062 patent. As described above, claim 1 has been amended to specifically provide for the existence of a vacant space between the gate electrode and the portion of the substrate containing the source and drain areas. Because the ‘062 patent does not teach this limitation, claim 1 is not anticipated by this prior art reference. Because claim 2 depends from claim 1, it is similarly not anticipated by the ‘062 patent.

As amended, claim 12 specifically provides that the “gas-sensitive layer comprises polycyclopentylsilsesquioxane.” This claim is believed allowable because, as the Examiner stated in the last Office Action, the prior art does not teach or suggest a gas-sensitive layer comprising polycyclopentylsilsesquioxane.

Finally, claims 1, 6, 7, and 10 are not anticipated by Inami. As discussed above, claim 1 is currently amended to specifically provide for the formation of a vacant space between the gate electrode and the substrate, a limitation not taught by Inami. As such, in its current form claim 1 is not anticipated by Inami.

Because claims 6, 7, and 10 depend from claim 1, they are similarly not anticipated by Tsutsumi.

The Claims Are Nonobvious

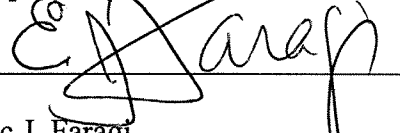
Applicants respectfully assert that claims 7, 8, and 9 are not obvious over the '062 patent in view of Inami. M.P.E.P. § 2142 instructs that a finding of obviousness requires that the cited art "teach or suggest all the claim limitations." As emphasized above, claim 1 is hereby amended to provide for a "vacant space" between the gate electrode and the substrate. Neither the '062 patent nor Inami teach the presence of this vacant space, and taken together, they fail to provide one of ordinary skill in the art with the motivation or suggestion to so modify the prior art to achieve the claimed invention. As such, the claims are not obvious in light of the cited prior art.

CONCLUSION

Applicant respectfully submits that this application is in condition for allowance, and such disposition is earnestly solicited. Applicants believe that no additional fees are due in connection with submission of this paper. Should any additional fees be due, or if any overpayment has been made, the Commissioner is hereby authorized to charge any additional fee or credit any overpayment to Deposit Account No. 02-4377.

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Respectfully submitted,


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